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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,954	08/27/2001	Brian Whitman	14855	5409

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EXAMINER

WOZNIAK, JAMES S

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,954

Applicant(s)

WHITMAN ET AL.

Examiner

James S. Wozniak

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-26 and 44-66 is/are pending in the application.
- 4a) Of the above claim(s) 19-26 and 44-48 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 55, 56, 58-62 and 64-66 is/are allowed.
- 6) ☒ Claim(s) 49-50 and 52-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In response to the office action from 8/15/2006, the applicant has submitted an after final amendment, filed 11/15/2006, amending claims 49, 55, and 61 to include the limitations of claims 51, 57, and 63, respectively. These claim amendments overcome the prior art of record, and thus, the previous art rejections set forth in the Office action from 8/15/2006 have been withdrawn. Upon further consideration of the claims, however, claims 49-50 and 52-54 are subject to a rejection under 35 U.S.C. 101 rejection as is set forth below. Due to this new ground of rejection, finality has been withdrawn.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 49-50 and 52-54** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 49 recites a process of classifying data from an audio signal. Although this process falls within a proper statutory category (i.e., process), it is not directed to a practical application (i.e., non-functional descriptive material) that produces a useful, tangible and

concrete result (*See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Page 30*).

More specifically, although the process in claim 1 is related to a seemingly patentable process, featuring processing and inputting steps, this claim is directed towards non-functional descriptive material (i.e., computer program description) by virtue of Claim 55. Claim 55 indicates that the steps of processing and inputting are part of a computer program. In claim 55, these program steps are stored on a computer readable medium that enable the program's functionality, but the steps recited in claim 49 are not stored on such a medium, and thus, claim 49 is directed to non-statutory subject matter. In other words:

Claim 49 is drawn to a "program" *per se* and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory).

Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are

not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which *permit the computer program's functionality to be realized* to produce a concrete or tangible result.

Dependent **claims 50 and 52-54** do not overcome the 35 U.S.C. 101 rejection directed towards claim 49, and thus, are also rejected as being drawn to non-statutory subject matter.

Allowable Subject Matter

4. Claims **55-56, 58-62, and 64-66** are allowable over the prior art of record.

5. With respect to **Claims 55 and 61**, the prior art of record fails to explicitly teach or fairly suggest a program stored on a computer readable medium causing a computer to execute a process or system containing module components (*specification, Paragraphs [0049-0051]*) for music classification implemented using a multiple stage classifier comprising a first stage of support vector machine (SVM) classifiers each associated with a musical category such as a particular artist or genre, wherein input audio signal learning vectors are applied to each SVM classifier to produce a value indicative of how well or poorly the input audio signal vector conforms to a particular classification, and wherein the generated value from each of the classifiers is utilized in creating a metalearning vector, which is utilized at a neural network classifying stage to make a final classification determination.

Although Weare et al (*US 6,657,117*) mention determining a degree of similarity (distance) to a particular audio classification, such a similarity determination is made at a second classification stage and not at a first classification stage utilizing a SVM (*Col. 10, Line 65- Col. 11, Line 50*). Therefore, since the distance value determination taught by Weare does not occur in a first classification stage, Weare also fails to disclose the use of such values in creating a metalearning vector to be used in a final neural network classification stage.

Thus, Claims 55 and 61 are allowable over the prior art of record.

Dependent claims 56, 58-60, 62, and 64-66 further limit allowable independent claims, and thus, are also allowable over the prior art of record.

Conclusion

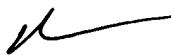
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached at (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
12/6/2006



**DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
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